

L Number	Hits	Search Text	DB	Time stamp
1	0	overhead adj project\$ same (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 08:46
2	26	overhead with project\$ and (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 08:46
3	6	("4903012" "5319384" "5586243" "5617117" "5856822" "5874948").PN.	USPAT	2004/06/14 08:56
8	57	(presentation or presenting) with project\$ and (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:31
9	87	(presentation or presenting) with project\$ and (hand or finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:41
10	28	(presentation or presenting) with project\$ and (moving or movement) near5 (hand or finger or pen or stylus) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:47
11	0	(presentation or presenting) with project\$ and (moving or movement) near5 (hand or finger or pen or stylus) near5 (touchscreen or touchpanel) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:49
12	1	project\$ and (moving or movement) near5 (hand or finger or pen or stylus) near5 (touchscreen or touchpanel) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:50
13	1	project\$ and (moving or movement) with (hand or finger or pen or stylus or fingertip) near5 (touchscreen or touchpanel) with (pointer or indicator or cursor or highlight or highlighting)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:51
14	12	project\$ and (hand or finger or pen or stylus or fingertip) near5 (touchscreen or touchpanel) with (pointer or indicator or cursor or highlight or highlighting)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:51
-	148	project\$ with image with cursor with (location or position)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:12
-	0	project\$ with image with cursor with (location or position) same (touchscreen or touchpad)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:12
-	318	project\$ with image with (pointer or cursor) with (location or position)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:15
-	2	project\$ with image with pointer with (location or position) same (touchscreen or touchpad)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:12
-	193	project\$ same (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 09:30
-	102	project\$ with (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:20

-	0	project\$ with (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor) same (touchpanel or touchscreen or touchpad)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 07:20
-	2	project\$ same (finger or pen or stylus or touch\$) with (location or position) with (pointer or indicator or cursor) same (touchpanel or touchscreen or touchpad)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/06/14 08:44

Examples of existing
SIDs include the spatially-orientation mouse, infrared
pointer, pressure- or
capacitance-sensitive pads, or eye-sensing technology
that translates movement
of the user's fingers, hand, head, or eyes into
coordinate positions on the
display or presentation, and uses various types of
activation or actuation
(finger or eye movement, voice-activation, button
clicking, or other methods)
to responsively produce input operations, selections,
controls, or prompts.

Detailed Description Text - DETX (24):

The preferred embodiment of the animated map display
38 described above
contemplates presenting that animated map display 38 in a
manner that may be
readily visualized by the operator 12 during the
application procedure. The
heads-up display (HUD) 48 apparatus of this invention
provides a means for
accomplishing this presentation by projecting the image
or images of the
animated map display 38 overlaid with one-to-one spatial
correspondence with
the operator's 12 real-world view of the terrain and
field through the
windshield 16 (and optionally the side windows) of the
cab of the vehicle 14.

Detailed Description Text - DETX (26):

The HUD 48 may utilize a projector 50 of any type
conventionally utilized
for the presentation of graphical data, such as an LCD
screen 56 through which
visible light is directed to project a magnified image 54
on a physical
surface. By projecting the enlarged image 54 onto an
area the windshield 16
corresponding to the operator's 12 field-of-view 58
including the practical
limits of useful peripheral vision in both the vertical
and horizontal
directions, the operator's 12 line-of-sight 60 may be

maintained at a generally horizontal or level position rather than the markedly downward angle shown in FIG. 3 necessitated by prior art display screens.

Detailed Description Text - DETX (35):

The processing platform 22 processes information using its operating system and resident program (or routines called from another system/network processing component 74), in addition to information from the agronomic plan and maps contained in memory 64 and location information derived from the navigational locator 66. The processing platform 22 generates the animated map display image 38 or images 38 that are fed to the heads up display device 48 for projection or presentation in a suitable manner for viewing by the operator 12. The processing platform 22 also generates one or more control signals that are fed to the variable rate product application equipment 76 to control the gates, relays, valves, pumps, dispensers, conveyors, spreaders, and other components utilized to distribute the products on the field at precisely controlled variable rates.

US-PAT-NO: 5751576

DOCUMENT-IDENTIFIER: US 5751576 A

TITLE: Animated map display method for
computer-controlled agricultural product application
equipment

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Detailed Description Text - DETX (17):

Once loaded into the onboard processing platform 22 on the vehicle 14, the animated map display 38 is presented for visual observation or viewing by the operator 12. This presentation may be via a conventional liquid crystal display (LCD) screen, or as described herein the preferred approach is to project the animated map display 38 such that it is overlaid in a one-to-one spatial correspondence to the operator's 12 real-world view of the actual terrain and field. Additionally, the animated map display 38 could be presented using a virtual reality (VR) head-mounted display, or any one of a number of other presentation devices known to the art or hereafter developed.

Detailed Description Text - DETX (21):

One preferred option for the operator 12 to input information or data when the animated map display 38 is projected as a two- or three-dimensional representation overlaid over the real-world view of the terrain is the use of a spatial interface device (SID) that permits the operator 12 to effectively "draw" information onto the animated map display 38 in a manner that projects that information along with the animated map display 38.